

REMARKS

Allowability of claims 128-187 had been withdrawn until Applicants satisfy certain conditions. Claim 188 is now rejected. The rejections have been addressed below.

Improper Amendment Submitted 4/14/03 Adding New Claims 128-188

The amendment submitted April 14, 2002 was not in accordance with 37 CFR 1.173.(d). Specifically, the Examiner requires that all newly presented claims must be underlined in their entirety.

All claims that had been newly presented in the response filed April 10, 2003 have been submitted in underlined form. A support document (Exhibit A) identifies which of the newly presented claims correspond to the original claims and explains from where they derive there support in the disclosure of the patent is attached.

Supplemental Reissue Oath/Declaration Required

In accordance with 37 CFR 1.175(b)(1), a supplemental reissue oath/declaration under 37 CFR 1.175(b)(1) must be received before the reissue application can be allowed.

Attached is the required Supplemental Reissue Oath/Declaration required. Applicants have submitted a Supplemental Oath/Declaration with this amendment.

In addition, Applicants have submitted an updated and revised Offer to Surrender and Assent to Reissue signed by a duly authorized representative of the Assignee, which owns the entire right of the patent at issue.

Missing Information Disclosure Statement

All references cited in the original patent must be cited in the re-issue application. Attached is the required Information Disclosure Statement and Form PTO form 1449 as required.

Applicants submitted all of this information in an IDS and accompanying PTO form 1449 on January 11, 2000, the date the reissue application was filed. This is indicated by the post card that accompanied the application, a copy of which is attached. In order to avoid any unnecessary duplication, if the Examiner cannot locate this IDS, please notify Applicant's representative and she will send copies of what was previously submitted.

Improper Presentation of Product Claims

Claim 188 was rejected under 35 U.S.C. 251 as being an improper recapture of the claimed subject matter. The Examiner stated that "Claim 188 is rejected under 35 USC 251 as being an improper recapture of the claimed subject matter deliberately canceled in the application for the patent upon which the present re-issue is based..." and "a reissue applicant's failure to file a divisional application is not considered to be an error causing a patent granted on elected claims to be partially inoperative by reason of claiming less than the application had a right to claim." (Underlining added.)

With regard to the statement about error, Applicants agree that failure to file a divisional is not considered to an error that would allow recapture of the subject matter of non-elected claims. However, applicants are not trying to revive the subject matter of non-elected claims in the parent application in pending claims 188-89.

Applicants submit that 1) the subject matter of claims 188 and 189 is not the same as the subject matter of claims 25-28 from the parent case, nor that of claims 28-31 submitted in this application; and 2) being product-by-process claims, these claims are proper and are part of the same invention as the process claims.

The subject matter of the claims 188 and 189 are not the same as the subject matter of originally-presented and non-elected claims 25-27 and 28 of the parent application.

Applicants have reproduced the non-elected claims for the Examiner's convenience:

25. A mesoporous silica powder having a plurality of particles comprising: said plurality of particles in a size range are hollow spheres with mesopores therein.

26. The particles as recited in claim 25, having a diameter of at least 1 micron.

27. A mesoporous silica product, comprising:
a fiber having a diameter of at least 5 microns with mesopores therein.

28. A calcined mesoporous silica film on a substrate comprising a d-spacing less than 40 angstroms.

Applicants had presented claims 28-31 in the current application, where claims 28-30 corresponded directly to claims 25-27 of the parent application, and claim 31, reproduced below was newly added.

31. A calcined mesoporous silica film on a substrate formed by a process comprising any one or more of the steps including spin coating, dip coating and evaporation.

The non-elected claims 25-27 were composition of matter claims having limitations relating to particle size and shape. Claim 27 is a "product" claim having a structural limitation relating to fiber diameter and limited to a silica product formed by any process having one or more of three recited steps (dry spinning, fiber drawing and rapid evaporation). Applicants accept, for this argument, that the Examiner correctly offered an alternative method to form the product of claim 27 in the parent restriction, i.e., sol-gel or precipitation. Claim 31 similarly is a composition of matter claim (silica film) formed by any process that includes one or more of "spin coating, dip coating and evaporation." Again, Applicants herein accept for purposes of argument that the Examiner properly recited an alternative method for making the "product" of claim 31, i.e., chemical vapor deposition, brushing, immersion in a container with the coating of silica material, etc.) in the parent restriction.

For comparison, Applicants present currently pending claims 188 and 189:

188. A calcined mesoporous silica film on a substrate formed by a process comprising:

- dispensing an acid catalyst- and silica precursor- and aqueous solvent- and surfactant-containing solution on the substrate;
- forming a film on the substrate by rapid evaporation of the solution on the substrate;
- heating the film on the substrate for a time and to a temperature sufficient substantially to remove any residual solvent; and
- calcining the film at a temperature at or above 350°C.

189. A calcined mesoporous silica film on a substrate formed by a process comprising:

- dispensing a catalyst- and silica precursor- and solvent- and surfactant-containing solution on the substrate;
- forming a film on the substrate by rapid evaporation of the solution on the substrate; and
- heating the film on the substrate to a temperature of between about 105 degrees C and about 600 degrees C to decompose the surfactant and calcine the mesoporous silica film.

As can immediately be seen, the subject matter of claims 188 and 189 is not the same as that claimed in non-elected claims 25-27 and 28 of the parent application. Claims 188 and 189 are product-by-process claims reciting a plurality of discrete process steps closely paralleling pending process claim 156. Therefore, claims 188 and 189 do not constitute recapture of the subject matter of non-elected claims of the parent application.

Moreover, claims 188 and 189 are product-by-process claims, which are proper and are part of the same invention as the current process claims. As stated in the MPEP § 2173.05(p)I:

"There are many situations where claims are permissibly drafted to include a reference to more than one statutory class of invention. A product-by-process claim, which is a product claim that defines the claimed product in terms of the process by which it is made, is proper." *In re Moeller*, 117 F.2d 565, 48 USPQ 442 (CCPA 1941); *In re Luck*, 476 F.2d 650, 177 USPQ 523 (CCPA 1973); *In re Steppan*, 394 F.2d 1013, 156 USPQ 143 (CCPA 1967); and *In re Pilkington*, 411 F.2d 1345, 162 USPQ 145 (CCPA 1969). See MPEP 2173.05(p).

The Examiner seems to be arguing that claims 188 and 189—and indeed, all product claims—are barred from prosecution in this application because product claims previously in the parent case were non-elected. However, product-by-process claims such as those submitted in claims 188 and 189 would not have been subject to that restriction requirement, as they would have been considered part of the same invention as the claims elected. As stated in the MPEP § 806.05(f):

"...defining the product in terms of the process by which it is made is nothing more than a permissible technique that applicant may use to *define the invention* [emphasis added]."

As is readily seen upon inspection, claims 188 and 189 are product-by-process claims that "define the claimed product in terms of the process by which it is made." Claims 188 and 189 therefore are drawn to the same invention as pending claims 128-155 (corresponding to previously issued claims 1-27) and pending claims 156-187.

Applicants further agree that a product claim, reciting only a single process limitation, can properly be restricted if an alternative method for making the product is stated by the Examiner. However, a product-by-process claim, reciting a process with particularity, is less likely to be capable of being made by any alternative process. Such a claim is not properly subject to restriction, unless the Examiner can offer an alternative method that nevertheless satisfies the claimed process steps recited in such a claim. Claims 188 and 189 are such claims.

The subject matter of claims 188-89 is defined "in terms of the process by which it is made." Claims 188 and 189 are product-by-process claims defining the product in terms of the process claims such that the product could only be produced by the process claimed. Applicants submit that these claims are properly submitted in this application and request withdrawal of the Examiner's objection to these claims.

Finally, having traversed the Examiner's objection to these claims, the burden now shifts to the Examiner to document a viable alternative process or product, or withdraw the requirement (objection). See MPEP §806.05(f). The Examiner has provided no alternative process by which to make the claimed product, other than by the recited process. The Examiner having failed to meet his burden, Applicants therefore respectfully request that the objection be withdrawn and claims 188-89 allowed.

Please note that claim 188 claims the same subject matter as 128 did prior to the amendment submitted on March 27, 2003. The amendment to claim 128 had been done with the understanding that the amendments would make claim 128 allowable. (See Advisory Action, Paper No. 31, January 11, 2000 ("Claim 128 is allowable and case is in condition for allowance pending re-submission of amendment renumbering claims.")(underlining added.)). Applicants submit that the subject matter of claim 188 is allowable, as the Examiner has indicated in the Advisory Action.

Conclusion

Applicants submit that they have cured the errors noted above with the submission of: 1) the claims in proper underlined format; 2) a support document; 3) a supplemental oath and declaration; 4) the assent of assignee; 4) documented the previous submission of the IDS; and 5) traversed the Examiner's objection to claims 188 and 189. We now await the Notice of Allowance and Reissue Certificate of the Bruinsma patent. Please contact the undersigned at (503) 222-3613 if there are any further questions or issues.

Respectfully submitted,

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Signature

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NEW CLAIMS NUMBERING WITH REQUESTED SUPPORT

(Note: New claim related to previous claim numbers only provided as a convenience)

New claim #	Previous claim # (Prior to renumbering)	Support
129 – 155	1-27	Claims 1-27 from patent
156	40	Example 1 and Example 10, Example 1 is described in detail at column 8, line 40-column 9, line 11. Example 10 is described in detail at column 18, lines 13-63.
157	41	Col. 7, lines 58-63; column 9, lines 34-55; and in Fig. 2. Example 1, Figure 2, and associated discussion in column 9, lines 34-55 as well as at column 7, lines 58-63
158	109	A range of refractive index depicted in the graph of Figure 4.
159	58	Example 1 (column 8, line 40-column 9, line 8) and example 10 (column 18, lines 1-61)
160	59	Column 4, lines 5-9
161	60	Column 7, lines 58-63; column 9, lines 34-55; and in Fig. 2. Example 1, Fig. 2, and associated discussion in column 9, lines 34-55, as well as at column 7, lines 58-63
162	69	Col. 7, lines 40-51
163	70	Example 10, referenced above
164	71	Example 10, referenced above
165	78	Col. 7, line 23
166	110	A range of refractive index depicted in the graph of Figure 4
167	79	Col. 3, lines 39-43; Col. 4, lines 9-16
168	80	Col. 8, lines 35-37
169	81	Col. 7, line 6-22
170	82	Col. 7, lines 6-22
171	83	Col. 4, lines 40-45;
172	111	A range of refractive index depicted in the graph of Figure 4.
173	86	Col. 8, lines 35-37
174	113	A range of refractive index depicted in the graph of Figure 4.
175	87	Col. 7, lines 6-22
176	88	Col. 7, lines 6-22
177	90	Col. 7, line 23

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New claim #	Previous claim # (Prior to renumbering)	Support
178	84	Col. 3, lines 55-64; Col. 4, lines 9-16;
179	85	Col. 7, lines 6-22;
180	112	A range of refractive index depicted in the graph of Figure 4.
181	91	Col. 3, lines 55-64; Col. 4, lines 9-16, Col. 7, lines 6-22.
182	92	Col. 7, lines 9-10.
183	93	Col. 4, line 15
184	114	Column 7, lines 45-52
185	94	Col. 4, lines 40-45; Col. 8, lines 35-37;
186	95	Col. 8, lines 35-37
187	98	Col. 7, lines 40-51;
188	128	Example 1 and Example 10, Example 1 is described in detail at column 8, line 40-column 9, line 11. Example 10 is described in detail at column 18, lines 13-63.

EXHIBIT A
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